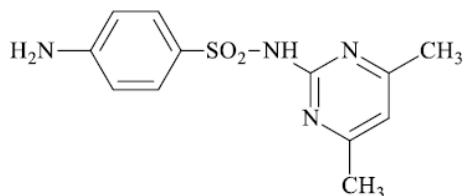


Sulfadimidine Tablet



C₁₂H₁₄N₄O₂S

M.W: 278.3

M.P: 197°C

The average weight of the sulfadimide, C₁₂H₁₄N₄O₂S contained in the tablet, should not be less than 99% and not more than 99% of the amount of Sulfadimide written or reported.

Properties: White or whitish, powder or crystal

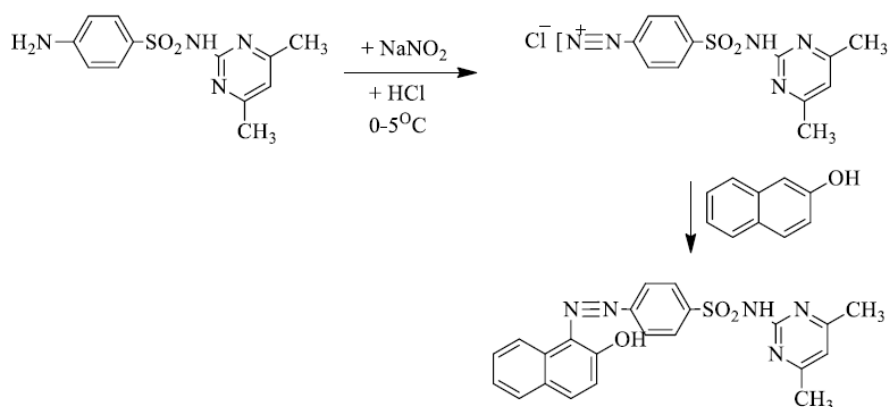
Solubility: Highly soluble in water and ether, soluble in acetone, easily soluble in alcohol. soluble in alkaline hydroxides and dilute mineral acids.

Recognition Reactions:

An amount of about 0.5 g of sulfadimidine from the fine powdered tablets is crushed with 5 ml of chloroform R and taken up in a small screen; Wash with 5 ml of chloroform R, remove the filtrate. 10 ml of dilute ammonia TS is now crushed with precipitate for 5 minutes,

Add 10 ml of water and filter. The filtrate is heated until a large portion of the ammonia is removed, cooled and acidified with 6 M acetic acid. The precipitate is collected, washed with water and adheres to the following recognition tests:

A) about 0.05 g of the substance is dissolved in 2 ml of warm dilute hydrochloric acid R, 2 ml of sodium nitrite TS, 2 ml of water and 1 ml of sodium-naftol TS are added and an orange precipitate is formed.



B) 0.01 g of the substance is dissolved in 10 ml water and 1 ml 0.1 N sodium hydroxide mixture, add 0.5 ml cuprous sulfate TS; a blur of pale green color occurs first, and then becomes a brownish suspension. Finally turns into an a reddish-brown precipitate (some other difference from sulfonamides).

Quantity Determination:

20 tablets are weighed and powdered. A fully weighed amount of this powder equivalent to about 0.5 g of sulfadimidine is dissolved in a mixture of 50 ml of water and 10 ml of hydrochloric acid R if necessary by heating, and the solution is cooled to 15 ° C, about 25 g of crushed ice is added, it is titrated with 0.1 N sodium nitrite by vigorous shaking from time to time a baguette dipped in solution and is touched to a starch iodide paper and until a blue color is formed immediately on paper. After a moment from this moment, if the control with the indicator paper gives the same result, the titration is finished.

1 ml 0.1 N sodium nitrite ...is equivalent to..... 1. 0.02783 g $C_{12}H_{14}N_4O_2S$

(each tablet contains 0.5 g of sulfadimide).

Storage: Sulfadimidine tablets in well sealed containers, light must be kept protected.

Reagents to be prepared:

Diluted ammonia TS: Approximately 10% w / v solution of NH_3 (with reagent purity) in water. (d: 0.9, 25% a / a)

6 M Acetic acid: (d: 1.049, 99.8% w / w)

Dilute HCl R: 260 ml of HCl R is completed to 1000 ml with distilled water.

HCl R: 25% w / v solution of HCl in water (d: 1.19, 37%)

Sodium Nitrite TS: 10% w / v solution of sodium nitrite R in water

β -naphthol TS: New crystallized 5 g β -naphthol R is dissolved in 40 ml sodium hydroxide TS and is completed with 100 ml of distilled water. β -Naftol TS should be used when it is to be used.

Sodium hydroxide TS: 8% w /w solution of sodium hydroxide R in water

0.1 N NaOH: 0.4 g of NaOH R is dissolved in 100 ml of distilled water.

Kupri Sulfate TS: 12.5% w / w solution of Kupri sulfate R in water.

0.1M $NaNO_2$: 6.9 g $NaNO_2$ R is dissolved in 1 liter of distilled water.